

EXECUTIVE SECRETARIAT

Routing Slip

TO:

		ACTION	INFO	DATE	INITIAL
1	DCI				
2	DDCI				
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4	D/ICS				
5	DDI				
6	DDA		✓		
7	DDO				
8	DDS&T				
9	Chm/NIC				
10	GC				
11	IG				
12	Compt				
13	D/EEO				
14	D/Pers				
15	D/OEA				
16	C/PAD/OEA				
17	SA/IA				
18	AO/DCI				
19	C/IPD/OIS				
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22					
SUSPENSE		Date			

Remarks:

Executive Secretary
5/11/82

Date



HARVARD UNIVERSITY

PROGRAM ON INFORMATION RESOURCES POLICY

100-1335

ANTHONY C. GATTOLISI
ChairmanJOHN C. LIGATES
Director
(617) 495-4114

January 15, 1982

Participation in 1981-82 Seminars by Conference Call

Participation will be on first come, first served basis. The charge for the service is \$80 per line for affiliates of the Program. The charge for those other than affiliates is \$115 per line.

Please call Janice Thompson before noon on any scheduled Monday to reserve a line for that Monday (617-495-4114).

*** TIPS FOR EFFECTIVE PARTICIPATION ***

1. Between 3:45 pm and 4:00 pm, please keep your line clear and have someone available to answer it so the conference operator can hook you up for on-time start.

2. If you use a speaker phone, please take the precautions suggested in the letter from New England Telephone printed on the reverse of this page.

3. In case any trouble develops do not hang up but call the New England Telephone Company Conference Supervisor in Boston (Pat O'Keefe on (617)-743-4362) and report the fact that you are having trouble. (Your local operator can do this for you free of charge.) PLEASE do not call our office; we can't help from here.

4. At the end of each seminar, please stay on the line for about a minute. We will ask you how it went. If you aren't there at the end, please call us the next day to let us know what happened. Any comments and advice will be welcome.

In addition, we offer the following advice from a frequent teleconference participant:

"We have a WE unit-switch 680 AR 8-76 and loudspeaker set 108 AR 8-76. When we want receive-only, we simply hold the switch in the On position (by laying a stapler on it)."

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L-305

**New England
Telephone**

SPECIAL SERVICES DIVISION

173 BOSTON STREET
DORCHESTER, MASS. 02125

RADIO AND TELEVISION GROUP

To all participants in the Harvard University Telephone Lecture Conference held weekly.

SUBJECT: Use of Speaker Phones

To anyone participating in the Conference Telephone Hookup for the weekly Lecture that use speaker phones. A word of caution - some types of speaker phone arrangements have (automatic noise blanker circuits) built in. This circuit is activated by any noise in close proximity of the microphone, and shuts down the receiver, thus losing some portion or portions of the Conference.

It is my suggestion that to reduce the possibility of this problem arising, that all those who use a speaker phone hookup be cautioned not to make any unnecessary noise in the vicinity of the equipment.

Type of noise problems:

1. Pencil tapping or shuffling of paper
2. Unrelated or unnecessary conversation
3. Air conditioners or fan noise etc..

Respectfully,

Russell Castor
Foreman/Test



HARVARD UNIVERSITY

PROGRAM ON INFORMATION RESOURCES POLICY

ANTHONY G. OETTINGER
ChairmanJOHN C. LIGATES
Director
(617) 495-4114SEMINARS ON VIDEOTAPE

As an experiment, we are videotaping the last five seminars
in our spring series. They are:

- April 5 Bernard Wunder, Director, NTIA
"AT&T and the Provision of Information Services"
- April 12 Rob Kling, Professor, Department of Information and
Computer Science, UC, Irvine
"Web Models: Computer Technology as Social Organization"
- May 3 Larry Sperling, Vice President, Corporate Planning and
Business Development, Canada Post
"Issues Stemming from the Canadian Postal Reorganization"
- May 10 Janet D. Steiger, Chairman, U.S. Postal Rate Commission
"Postal Re-organization 10 Years Later"
- May 17 Dan Piccone, IBM Director, Telecommunications Practice
"Intra Industry Financial Relationships in a Competitive
Environment"

They are available at the following prices:

	First Tape				
	Per Organization	second	third	fourth	fifth ...
Non-affiliate	\$.300	\$300	\$225	\$225	\$150
Affiliate	\$.200	\$200	\$150	\$150	\$100

Tapes can be made available on all conventional tape format: please specify.

REMINDER: Audio tapes of all seminars are available at \$8.00 each.

Please address inquiries to Ms. Janice Bollman.



HARVARD UNIVERSITY
PROGRAM ON INFORMATION RESOURCES POLICY

ANTHONY G. OETTINGER
Chairman

JOHN C. LIGATES
Director
(617) 495-4114

April 23, 1982

SPRING SEMINAR UPDATE

All seminars are held on Mondays between 4 and 5:30 pm in Room 241 of the Aiken Computation Laboratory, 33 Oxford Street, Cambridge, MA *

- April 5 BERNARD WUNDER, Director, National Telecommunications and Information Agency
 "AT&T and the Provision of Information Services"
- April 12 ROB KLING, Professor, Department of Information and Computer Science, University of California, Irvine
 "Web Models: Computer Technology as Social Organization"
- April 19 no seminar
- April 26 no seminar
- May 3 LARRY SPERLING, Vice President, Corporate Planning and Business Development, Canada Post
 "Issues Stemming from the Canadian Postal Reorganization"
- May 10 JANET D. STEIGER, Chairman, U.S. Postal Rate Commission
 "Postal Re-organization 10 Years Later"
- May 17 Rescheduled from March 15
 Dan Piccone, IBM Director, Telecommunications Practice
 "IBM's View on Computer II and the Rewrite of the Communications Act"

Seminars will resume in late September.

Please see enclosed note regarding video tapes of seminars. Audio tapes are available for all seminars for the cost of reproduction. Please contact Janice Bollman for further details.

* Conference call hook-up available. See enclosed instructions.

REVIEW

SPRING 1982

HARVARD UNIVERSITY

PROGRAM ON INFORMATION RESOURCES POLICY

Information Business Map Charts Frontiers

Since "Mapping the Information Business" first appeared in a Program draft report in December 1979, it has shown up in predictable and unpredictable places around the world. The Program has had requests to use the map from Finland to India to New Zealand. Versions have been used by *Fortune*, *Le Monde Diplomatique*, and Salomon Brothers' *Telecommunications Industry Report*. Program principals have used the map in presentations from Melbourne to Milan.

Congressman Tim Wirth asked us to use the map to set the opening scene for his initial 1981 hearings on the rewrite of the Communications Act of 1934. AT&T used it at one of its Presidents' Conferences and did a feature article on it in *The Bell Telephone Magazine*. And — to our frustrated delight — numerous affiliates have told us that they have developed specialized, but proprietary, versions of the map for internal planning and training purposes.

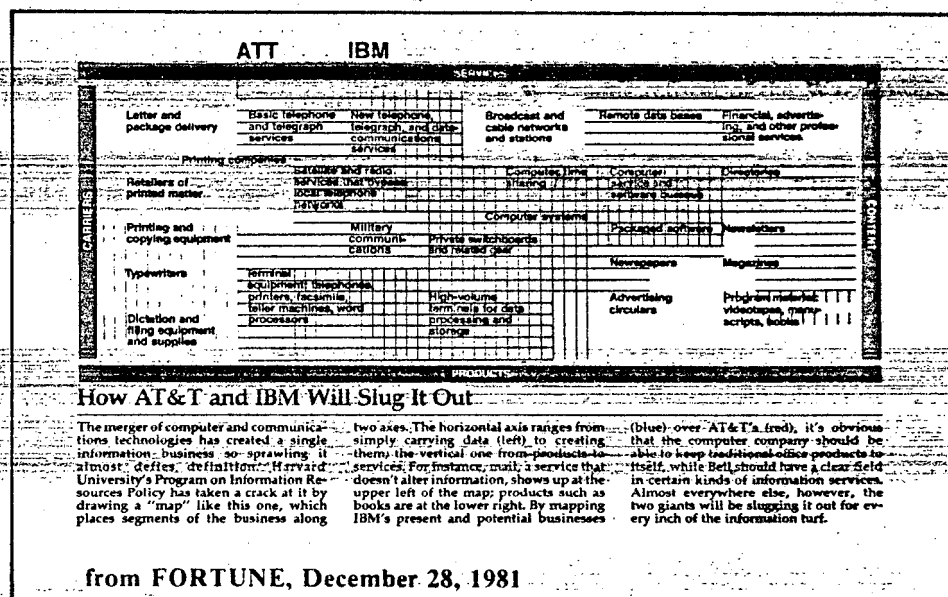
(see Map, p.3)

Visiting Researchers Work with Program

The Program has three visiting researchers working on projects. John McGarrity and Stephen Lawrence are spending the year with the Program. Robert Pepper is in residence for the spring semester. All three are being supported by their home institutions.

John H. McGarrity was assigned from his position as division manager, separations planning, for AT&T. His planned study while with the Program is "Implementing Access Charges: Stakeholders and Options." The objective of his work is to identify

(see Researchers, p.4)



Program's Nine New Publications

The Program has published nine new publications, working papers, and incidental papers in recent months. Their subjects range from intelligence, command, and control relating to the Iran hostage rescue mission to financial factors in rural telephone companies.

The Iran Hostage Rescue Mission: C/I in the Management of a Project Team, by Michael J. Zak. (Research Draft). This paper presents some ideas about business task force management and uses them to analyze the failed hostage rescue mission.

Factors Influencing Investment, Costs, and Revenues of Small, Rural, Independent Telephone Companies, by Warren G. Lavey. (Research Draft). This study involves an econometric analysis of 1980 data of 939 telephone companies, looking at the effects of lower subscriber densities, smaller exchanges, and lower proportions of business subscribers than other telephone companies.

Private Locks, Public Keys and

State Secrets: New Problems in Guarding Information with Cryptography, by Tom Ferguson. (Research Report). A growing number of new cryptographic systems may have significance for both national security and commercial enterprise. The study asks: Is the right of unrestricted inquiry into cryptography worth the potential national security losses? Or, could national security be threatened if new developments in cryptography are kept from the private sector?

Network Management Policy, by Lee Paschall. (Research Report). This paper examines the questions and problems which have emerged during the debate about communications network management and identifies the issues where opposing views or uncertainty confront the user, the supplier, and the policy maker with difficult choices.

(see Publications, p.2)

REVIEW

Contributors: *Where Are They Now?*

Since its inception in 1972, the Program has utilized the talents of a wide range of researchers and contributors to its publications. Besides those who are currently on the Program staff, there have been 45 contributors. Among them are lawyers, academics of various disciplines, military officers, government managers, business executives, and consultants. Nearly half — 22 — are in Washington, D.C. and environs. Others are scattered as far afield as Tokyo, Oslo, London, and Israel.

Following is the list of "Where are they now?"

C. Kenneth Allard, Armed Forces Staff College, Norfolk, VA and Ph.D. candidate, Fletcher School, Tufts University.
William O. Baker, Retired, formerly Chairman of the Board, Bell Laboratories, Inc.
Charles G. Benda, Senior Analyst, Fund for the City of New York.
Yale M. Braunstein, Assistant Professor of Economics, Brandeis University.
Barry Cherniavsky, Director, Center for Information and Economic Analysis, Ministry of Housing and Construction, Israel.
John H. Clippinger, President, Brattle Research Corp., Boston.
William E. Colby, Reid and Priest, Washington, D.C.
George N. Curby, International Business Information, Inc., Tokyo, Japan.
Richard DeLauer, Undersecretary of Defense for Research and Engineering, Department of Defense.
G. Michael Epperson, Bell, Boyd and Lloyd, Washington, D.C.
Kenneth Freeman, Consultant, Cambridge, MA.
Ellen Friedenbergh, Hughes, Hubbard and Reid, New York.
Robert Carson Godbey, Peabody, Rivlin, Lambert and Meyers, Washington, D.C.
Newell Highsmith, Kirkland and Ellis, Washington, D.C.
Phillip R. Hochberg, Vorys, Sater, Seymour and Pease, Washington, D.C.
B. R. Inman, Deputy Director of Central Intelligence, Washington, D.C.
Konrad K. Kalba, President, Kalba-Bowen Associates, Cambridge, MA.
Robert H. Klie, Retired, Andover, MA.

Warren G. Lavey, Lexecon, Inc., Chicago, IL.
Thomas Leney, 3rd Armored Cavalry Regiment, Ft. Bliss, TX.
Larry Levine, Vice-President and Director of Research, Communications Strategies, Inc., Cambridge, MA.
Greg Lipscomb, Communications consultant and attorney, Washington, D.C.
Guy Hamilton Loeb, Wald, Harkrader and Ross, Washington, D.C.
David McGaffey, Deputy Coordinator, Foreign Service Institute, Washington, D.C.
Marc Dean Millot, Consultant, Washington, D.C.
William Odom, Chief of Staff for Intelligence, Department of the Army.
Lionel Olmer, Undersecretary of Commerce for International Trade Administration.
Per Ongstad, Norsk Dokumentdata, Oslo, Norway.
James M. Osborne, Retired, St. Petersburg, FL.
Bruce M. Owen, President, Owen and Cornell Economists, Inc., Washington, D.C.
Lee Paschall, President, American Satellite Corp., Rockville, MD.
E. Laurence Povich, Chief, Program Evaluation Staff, Common Carrier Bureau, FCC.
William H. Read, Office of the Director, Voice of America, Washington, D.C.
David C. Richardson, Vice-Admiral (ret.), U.S. Navy.
Charlie Rose, Congressman, U.S. House of Representatives.
Robert Rosenberg, Assistant Chief of Staff, Studies and Analyses, Department of the Air Force.
Richard S. Rosenbloom, David Sarnoff Professor of Business Administration, Harvard Graduate School of Business Administration.
Michael Roth, Covington and Burling, Washington, D.C.
James Sichter, Staff Economic Director, United Telephone System, Inc.
Charles Snodgrass, Vice President, Financial Planning and Management, Electronic Data Systems Corp., Bethesda, MD.
Philip Sunshine, Stroock, Stroock and Lavan, Washington, D.C.
Raymond Tate, Raymond Tate Associates, Inc., Silver Spring, MD.
Christine D. Urban, President, Urban and Associates, Dedham, MA.
Robert Willig, Professor of Economics, Woodrow Wilson School, Princeton University.
A. K. Wolgast, Public Affairs Department, ESSO Europe, Inc., London.

Publications

(continued from p.1)

A Review of the War Powers Resolution of 1973 in Light of the Intelligence Accountability Act of 1980, by Newell Highsmith. (Research Draft). This study examines the statutorily mandated balance of war powers between Congress and the Executive and suggests a model for systematic reform of the War Powers Resolution (1973) and the war powers "partnership."

Implications for the "Communications" Industries of the Proposed Amendments to the Webb-Pomerene Act, by G. Michael Epperson. (Research Report). The amendments to the Act are a means of promoting export trade by providing an exemption from antitrust laws for certain export trading activities. The positive implications of these amendments may be much greater than they are perceived to be by the communications industries.

Government Competition with Private Enterprise: How to Price the Mails? by Mitchell Knisbacher. (Research Draft). This paper creates a much needed framework to help systematize the process by which competition to and by the Postal Service is considered legally, economically, and for policy.

Seminar on Command, Control, Communications and Intelligence, Spring 1981. Guest Presentations: William O. Baker, John H. Cushman, Richard D. DeLauer, B. R. Inman, James M. Osborne, David C. Richardson, Charles Rose, and Charles W. Snodgrass. (Incidental Paper).

Telephone-Letter-Mail Competition: A First Look, by John F. McLaughlin, with Anne E. Birinyi, David Dominik, and Eddie Munoz-Perou. (Research Report). Since the introduction of the telegraph and later the telephone, there has been continuing speculation as to the eventual impact of telecommunications upon traditional postal services. This study provides a detailed review of telephone and letter mail use and pricing between 1950 and 1977, with summary data for 1978 and 1979.

REVIEW

Mapping Frontiers

(continued from p.1)

"We've been a little shocked by the widespread acceptance and use of the map," says John McLaughlin, who was the leading force behind the map's development. "I think it says an awful lot about the confusion and instability in these businesses. But as we hoped, the map provided a lot of policy makers a frame of reference for seeing how some of these businesses relate to each other."

McLaughlin currently is working on a new version of the mapping paper. The updated edition will include some changes to the current edition. It also will depict the potential changes in regulatory and competitive boundaries caused by the Second Computer Inquiry, Senate bill 898, the proposed House bill 5158, and the proposed settlement of the AT&T antitrust case.

The Program is also preparing an international version of the mapping paper. This study will illustrate the boundaries of government regulation

of the information business in Japan, Canada, France, Italy, the Netherlands, Sweden, Great Britain, and West Germany. The maps for each of these countries will be used to depict government ownership and investment in various information industries. Additionally, the map will be used to show the market turf of selected corporations in each of these countries.

The Program continues to welcome input from affiliates and friends. Those interested in discussing the subject should call or write John McLaughlin.

CHARTING THE KNOWN AND THE UNKNOWN



Much like classical cartographers drawing up a new route to the Orient, a Harvard group finds a way to design a map of the information business — a map which sorts out, defines, and illustrates the nature, scope, and future of the information business — and which could be a major aid to the men and women who will help position the Bell System in the emerging "knowledge" marketplace.

BY THOM O'CONNOR

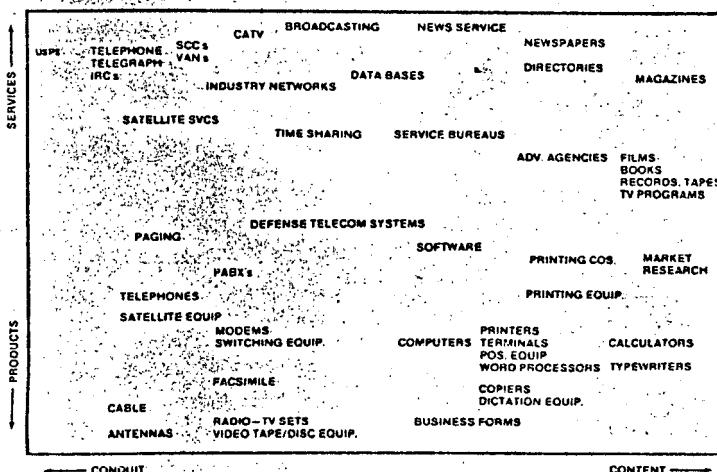
Jim Armstrong assumed that the 20 AT&T managers gathered for a meeting early this year were familiar with the graphics content of a report the guest from Harvard, Anthony G. Oettinger, had casually routed around the room. Armstrong himself, director of corporate policy analysis at AT&T in New York, had been introduced to the report — *Mapping the Information Business* — in 1979 at an informal meeting with, among others, John F. McLaughlin.

The illustrations quickly charted market nuances and overlapped territories of competing companies and services. Without the maps, the process could have involved weeks of research and pages of exploratory and explanatory text. The response at the presidents conference was mixed, but there was little doubt in Armstrong's mind that the "mapping technique" not only was innovative but also could be extraordinarily valuable in grasping the elusive and complex nature of the information business.

monitoring developments in a variety of businesses which, despite their surface diversity, are linked by a common denominator: a stake in the information business. For the purpose of research, McLaughlin and his staff defined *information* in its broadest sense: news, statistics, financial data, advertising, and research reports as generated, transmitted, or used by industries such as publishing, cable TV, computer manufacturers, news organizations. They defined the *information business* as the companies and government

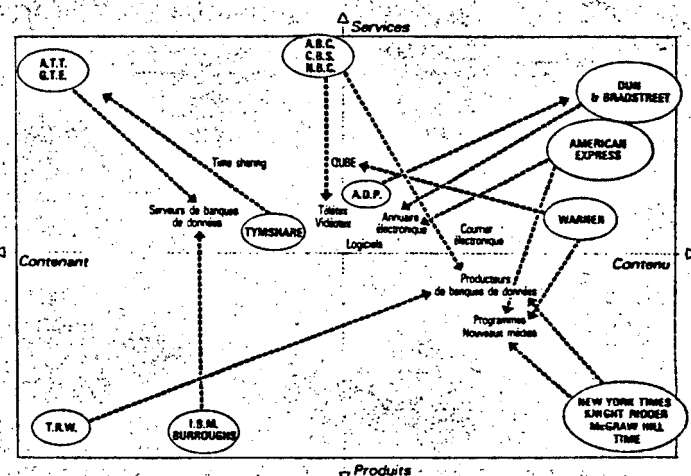
from BELL TELEPHONE MAGAZINE, 1981

The Information Business Matrix



from SALOMON BROTHERS, March 3, 1980

... ET LE MOUVEMENT DES CAPITAUX. — Schéma n° 2
D'origines diverses (informatique, téléphonie, édition, agences de voyage, etc.), les investissements ont tendance à se concentrer sur les réseaux et les logiciels.



from LE MONDE DIPLOMATIQUE, October 1981

REVIEW

Oettinger Addresses Business-Ed Forum

Program Chairman Anthony G. Oettinger told a group of business and industry leaders meeting at Harvard that, "like the consequences introduced by canals, railroads, and jet aircraft . . . the consequences of the information explosion on the shape of the nation, indeed of the world . . . may not be immediately evident."

Oettinger's address last July, "Harnessing the Age of Information," was before the Business-Higher Education Forum. The Forum is a group of 60 of the nation's top corporate executives and educators. Among its corporate members are Robert Anderson, Rockwell International Corp.; John Burlingame, Ford Motor Co.; Clifton Garvin, Jr., Exxon Corp.; Paul Henson, United Telecommunications, Inc.; Franklin D. Murphy and Robert F. Erburu, The Times Mirror Co. Academic members include Derek C. Bok, Harvard University; A. Bartlett Giamatti, Yale University; Theodore M. Hesburgh, University of Notre Dame; Thomas A. Graves, Jr., The College of William and Mary; and Barbara S. Uehling, University of Missouri-Columbia.

The Forum was created in 1978 by the American Council on Education. Among the topics on the agenda for the Forum's two day meeting were federal regulatory reform and capital formation. Oettinger told the group

that, while the capital cost of most things is going up, "information resources of certain kinds represent an area where . . . capital costs are rising less sharply than elsewhere in the economy."

Copies of the address are available from the Program.

Researchers

(continued from p.1)

and examine the diverse complications of moving to a system of access charges in the connection of interexchange telephone carriage with the local loop. McGarrity will focus on differentiating those goals that access charges can reasonably be expected to achieve from related issues that access charges will not resolve.

Lt. Col. Stephen H. Lawrence is on assignment from the U.S. Air Force, where he was most recently senior controller and chief, command control division, 319th Bombardment Wing. His study topic is "The Recentralization of Decision-Making: One Effect of the Telecommunications Revolution." The study will focus on the potential of real time telecommunications capabilities and computer data bases for increased control of far-flung operations by centralized agencies of hierarchical organizations.

Dr. Robert Pepper is on leave from the University of Iowa, where he is head of the broadcasting program. His research project is "Overseeing Cable in the Post-Federal Era." The

Scaife Foundation Awards Challenge Grant

The Center for Information Policy Research is currently completing the second year of a two-year grant by the Scaife Family Charitable Trust. The terms included \$200,000 as a guaranteed contribution, plus a \$200,000 challenge grant, which would meet dollar for dollar any increase in contributions from the program's affiliates to the Center.

The Center met the first year's goal for raising half the challenge grant and was close to completing the total challenge sum in early 1982. The Scaife grant is being used for general Center support and research by the Program on Information Resources Policy, principally to help launch the Program's expanded efforts in the command, control, communications, and intelligence arena.

study will examine the converging trends of deregulation of cable at the federal level and competition for channel capacity by an expanding universe of video and non-video programmers. The key question asked is: What regulations (if any), by whom, are appropriate to protect what stakes?

The output from these projects, as with all Program publications, will be sent out for review by all Program affiliates.

The Program encourages inquiries from affiliates on its visiting research opportunities.

Program on Information Resources Policy

Aiken 200
Harvard University
Cambridge, MA 02138

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